```
===============================================================
Sequence Listing could not be accepted due to errors.
See attached Validation Report.
If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).
Reviewer: Durreshwar Anjum
Timestamp: [year=2007; month=11; day=26; hr=13; min=35; sec=25; ms=131;
]
===============================================================


***********************************************************
Reviewer Comments:
2
23388us01

Please delete the end of file text which appears below seq id 59.
***********************************************************
```

Application No: 10723908   Version No: 2.0

Input Set:

Output Set:

                Started: 2007-10-31 21:40:09.000
               Finished: 2007-10-31 21:40:12.723
                Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 723 ms
         Total Warnings: 59
           Total Errors: 9
    No. of SeqIDs Defined: 59
       Actual SeqID Count: 59

Error code   Error Description

W   402   Undefined organism found in <213> in SEQ ID (1)

W   402   Undefined organism found in <213> in SEQ ID (2)

W   402   Undefined organism found in <213> in SEQ ID (3)

W   402   Undefined organism found in <213> in SEQ ID (4)

W   402   Undefined organism found in <213> in SEQ ID (5)

W   402   Undefined organism found in <213> in SEQ ID (6)

W   402   Undefined organism found in <213> in SEQ ID (7)

W   402   Undefined organism found in <213> in SEQ ID (8)

W   402   Undefined organism found in <213> in SEQ ID (9)

W   402   Undefined organism found in <213> in SEQ ID (10)

W   402   Undefined organism found in <213> in SEQ ID (11)

W   402   Undefined organism found in <213> in SEQ ID (12)

W   402   Undefined organism found in <213> in SEQ ID (13)

W   402   Undefined organism found in <213> in SEQ ID (14)

W   402   Undefined organism found in <213> in SEQ ID (15)

W   402   Undefined organism found in <213> in SEQ ID (16)

W   402   Undefined organism found in <213> in SEQ ID (17)

W   402   Undefined organism found in <213> in SEQ ID (18)

W   402   Undefined organism found in <213> in SEQ ID (19)

W   402   Undefined organism found in <213> in SEQ ID (20)

```
        Input Set:


        Output Set:



        Started:   2007-10-31 21:40:09.000
        Finished:  2007-10-31 21:40:12.723
        Elapsed:   0 hr(s) 0 min(s) 3 sec(s) 723 ms
  Total Warnings:  59
    Total Errors:  9
No. of SeqIDs Defined:  59
  Actual SeqID Count:   59
```

Error code   Error Description

                  This error has occured more than 20 times, will not be displayed

W   213   Artificial or Unknown found in <213> in SEQ ID (32)

W   213   Artificial or Unknown found in <213> in SEQ ID (33)

W   213   Artificial or Unknown found in <213> in SEQ ID (34)

W   213   Artificial or Unknown found in <213> in SEQ ID (35)

W   213   Artificial or Unknown found in <213> in SEQ ID (36)

W   213   Artificial or Unknown found in <213> in SEQ ID (37)

W   213   Artificial or Unknown found in <213> in SEQ ID (38)

W   213   Artificial or Unknown found in <213> in SEQ ID (39)

W   213   Artificial or Unknown found in <213> in SEQ ID (40)

W   213   Artificial or Unknown found in <213> in SEQ ID (41)

W   213   Artificial or Unknown found in <213> in SEQ ID (42)

W   213   Artificial or Unknown found in <213> in SEQ ID (43)

W   213   Artificial or Unknown found in <213> in SEQ ID (44)

W   213   Artificial or Unknown found in <213> in SEQ ID (45)

W   213   Artificial or Unknown found in <213> in SEQ ID (46)

W   213   Artificial or Unknown found in <213> in SEQ ID (48)

W   213   Artificial or Unknown found in <213> in SEQ ID (49)

W   213   Artificial or Unknown found in <213> in SEQ ID (50)

W   213   Artificial or Unknown found in <213> in SEQ ID (51)

W   213   Artificial or Unknown found in <213> in SEQ ID (52)
                  This error has occured more than 20 times, will not be displayed

E   355   Empty lines found between the amino acid numbering and the

Input Set:

Output Set:

Started:	2007-10-31 21:40:09.000
Finished:	2007-10-31 21:40:12.723
Elapsed:	0 hr(s) 0 min(s) 3 sec(s) 723 ms
Total Warnings:	59
Total Errors:	9
No. of SeqIDs Defined:	59
Actual SeqID Count:	59

Error code	Error Description
E 321	No. of Bases conflict, this line has no nucleotides SEQID (59)
E 259	Found undefined lettercode; POS (31) SEQID(59)
E 259	Found undefined lettercode; POS (32) SEQID(59)
E 259	Found undefined lettercode; POS (33) SEQID(59)
E 259	Found undefined lettercode; POS (34) SEQID(59)
E 259	Found undefined lettercode; POS (35) SEQID(59)
E 254	The total number of bases conflicts with running total, Input: 1, Calculated : 37 SEQID(59)
E 253	The number of bases differs from <211> Input: 30 Calculated:37

<400> 1
```
Met Ala Glu Met Lys Thr Asp Ala Ala Thr Leu Ala Gln Glu Ala Gly
 1               5                  10                  15
Asn Phe Glu Arg Ile Ser Gly Asp Leu Lys Thr Gln Ile Asp Gln Val
            20                  25                  30
Glu Ser Thr Ala Gly Ser Leu Gln Gly Gln Trp Arg Gly Ala Ala Gly
         35                  40                  45
Thr Ala Ala Gln Ala Ala Val Val Arg Phe Gln Glu Ala Ala Asn Lys
     50                  55                  60
Gln Lys Gln Glu Leu Asp Glu Ile Ser Thr Asn Ile Arg Gln Ala Gly
65                  70                  75                  80
Val Gln Tyr Ser Arg Ala Asp Glu Glu Gln Gln Ala Leu Ser Ser
                85                  90                  95
Gln Met Gly Phe
            100
```

<400> 2
```
Met Thr Glu Gln Gln Trp Asn Phe Ala Gly Ile Glu Ala Ala Ala Ser
 1               5                  10                  15
Ala Ile Gln Gly Asn Val Thr Ser Ile His Ser Leu Leu Asp Glu Gly
            20                  25                  30
Lys Gln Ser Leu Thr Lys Leu Ala Ala Ala Trp Gly Gly Ser Gly Ser
         35                  40                  45
Glu Ala Tyr Gln Gly Val Gln Gln Lys Trp Asp Ala Thr Ala Thr Glu
     50                  55                  60
Leu Asn Asn Ala Leu Gln Asn Leu Ala Arg Thr Ile Ser Glu Ala Gly
65                  70                  75                  80
Gln Ala Met Ala Ser Thr Glu Gly Asn Val Thr Gly Met Phe Ala
                85                  90                  95
```

<210> 3
<211> 96
<212> PRT
<213> M.Tuberculosis

<400> 3
Met Ser Gln Ile Met Tyr Asn Tyr Pro Ala Met Leu Gly His Ala Gly
 1   5   10   15
Asp Met Ala Gly Tyr Ala Gly Thr Leu Gln Ser Leu Gly Ala Glu Ile
            20   25   30
Ala Val Glu Gln Ala Ala Leu Gln Ser Ala Trp Gln Gly Asp Thr Gly
            35   40   45
Ile Thr Tyr Gln Ala Trp Gln Ala Gln Trp Asn Gln Ala Met Glu Asp
    50   55   60
Leu Val Arg Ala Tyr His Ala Met Ser Ser Thr His Glu Ala Asn Thr
65   70   75   80
Met Ala Met Met Ala Arg Asp Thr Ala Glu Ala Ala Lys Trp Gly Gly
                85   90   95

<210> 4
<211> 294
<212> DNA
<213> M Tuberculosis

<220>
<221> CDS
<222> (1)...(294)

<400> 4
atg agc ctt ttg gat gct cat atc cca cag ttg gtg gcc tcc cag tcg   48
Met Ser Leu Leu Asp Ala His Ile Pro Gln Leu Val Ala Ser Gln Ser
 1   5   10   15

gcg ttt gcc gcc aag gcg ggg ctg atg cgg cac acg atc ggt cag gcc   96
Ala Phe Ala Ala Lys Ala Gly Leu Met Arg His Thr Ile Gly Gln Ala
                20   25   30

gag cag gcg gcg atg tcg gct cag gcg ttt cac cag ggg gag tcg tcg   144
Glu Gln Ala Ala Met Ser Ala Gln Ala Phe His Gln Gly Glu Ser Ser
            35   40   45

gcg gcg ttt cag gcc gcc cat gcc cgg ttt gtg gcg gcg gcc gcc aaa   192
Ala Ala Phe Gln Ala Ala His Ala Arg Phe Val Ala Ala Ala Ala Lys
    50   55   60

gtc aac acc ttg ttg gat gtc gcg cag gcg aat ctg ggt gag gcc gcc   240
Val Asn Thr Leu Leu Asp Val Ala Gln Ala Asn Leu Gly Glu Ala Ala
 65   70   75   80

ggt acc tat gtg gcc gcc gat gct gcg gcc gcg tcg acc tat acc ggg   288
Gly Thr Tyr Val Ala Ala Asp Ala Ala Ala Ala Ser Thr Tyr Thr Gly
                85   90   95

ttc tga   294
Phe *

<210> 5
<211> 97
<212> PRT
<213> M Tuberculosis

<400> 5
Met Ser Leu Leu Asp Ala His Ile Pro Gln Leu Val Ala Ser Gln Ser
1   5   10   15
Ala Phe Ala Ala Lys Ala Gly Leu Met Arg His Thr Ile Gly Gln Ala
                20   25   30
Glu Gln Ala Ala Met Ser Ala Gln Ala Phe His Gln Gly Glu Ser Ser
            35   40   45
Ala Ala Phe Gln Ala Ala His Ala Arg Phe Val Ala Ala Ala Ala Lys
        50   55   60
Val Asn Thr Leu Leu Asp Val Ala Gln Ala Asn Leu Gly Glu Ala Ala
65   70   75   80
Gly Thr Tyr Val Ala Ala Asp Ala Ala Ala Ala Ser Thr Tyr Thr Gly
                85   90   95
Phe

<210> 6
<211> 339
<212> DNA
<213> M Tuberculosis

<220>
<221> CDS
<222> (1)...(339)

<400> 6
ttg atc ccc ggt cgg atg gtg ctg aac tgg gaa gat ggc ctc aat gcc   48
Leu Ile Pro Gly Arg Met Val Leu Asn Trp Glu Asp Gly Leu Asn Ala
 1   5   10   15

ctt gtt gcg gaa ggg att gag gcc atc gtg ttt cgt act tta ggc gat   96
Leu Val Ala Glu Gly Ile Glu Ala Ile Val Phe Arg Thr Leu Gly Asp
                20   25   30

cag tgc tgg ttg tgg gag tcg ctg ctg ccc gac gag gtg cgc cga ctg   144
Gln Cys Trp Leu Trp Glu Ser Leu Leu Pro Asp Glu Val Arg Arg Leu
                35   40   45

ccc gag gaa ctg gcc cgg gtg gac gca ttg ttg gac gat ccg gcg ttc   192
Pro Glu Glu Leu Ala Arg Val Asp Ala Leu Leu Asp Asp Pro Ala Phe
        50   55   60

ttc gcc ccg ttc gtg ccg ttc ttc gac ccg cgc agg ggc cgg ccg tcg   240
Phe Ala Pro Phe Val Pro Phe Phe Asp Pro Arg Arg Gly Arg Pro Ser
 65   70   75   80

acg ccg atg gag gtc tat ctg cag ttg atg ttt gtg aag ttc cgc tac   288
Thr Pro Met Glu Val Tyr Leu Gln Leu Met Phe Val Lys Phe Arg Tyr
                85   90   95

cgg ctg ggc tat gag tcg ctg tgc cgg gag gtg gct gat tcg atc acc   336

Arg Leu Gly Tyr Glu Ser Leu Cys Arg Glu Val Ala Asp Ser Ile Thr
            100   105   110

tga   339

<210> 7
<211> 112
<212> PRT
<213> M Tuberculosis

<400> 7
Met Ile Pro Gly Arg Met Val Leu Asn Trp Glu Asp Gly Leu Asn Ala
 1   5   10   15
Leu Val Ala Glu Gly Ile Glu Ala Ile Val Phe Arg Thr Leu Gly Asp
            20   25   30
Gln Cys Trp Leu Trp Glu Ser Leu Leu Pro Asp Glu Val Arg Arg Leu
        35   40   45
Pro Glu Glu Leu Ala Arg Val Asp Ala Leu Leu Asp Asp Pro Ala Phe
    50   55   60
Phe Ala Pro Phe Val Pro Phe Phe Asp Pro Arg Arg Gly Arg Pro Ser
65   70   75   80
Thr Pro Met Glu Val Tyr Leu Gln Leu Met Phe Val Lys Phe Arg Tyr
                85   90   95
Arg Leu Gly Tyr Glu Ser Leu Cys Arg Glu Val Ala Asp Ser Ile Thr
            100   105   110

<210> 8
<211> 285
<212> DNA
<213> M Tuberculosis

<220>
<221> CDS
<222> (1)...(285)

<400> 8
atg acc atc aac tat caa ttc ggg gac gtc gac gct cac ggc gcc atg   48
Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met
 1   5   10   15

atc cgc gct cag gcc ggg tcg ctg gag gcc gag cat cag gcc atc att   96
Ile Arg Ala Gln Ala Gly Ser Leu Glu Ala Glu His Gln Ala Ile Ile
                20   25   30

tct gat gtg ttg acc gcg agt gac ttt tgg ggc ggc gcc ggt tcg gcg   144
Ser Asp Val Leu Thr Ala Ser Asp Phe Trp Gly Gly Ala Gly Ser Ala
            35   40   45

gcc tgc cag ggg ttc att acc cag ctg ggc cgt aac ttc cag gtg atc   192
Ala Cys Gln Gly Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile
    50   55   60

tac gag cag gcc aac gcc cac ggg cag aag gtg cag gct gcc ggc aac   240
Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn
65   70   75   80

aac atg gca caa acc gac agc gcc gtc ggc tcc agc tgg gcc taa   285

Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala   *
                85   90

<210> 9
<211> 94
<212> PRT
<213> M Tuberculosis

<400> 9
Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met
 1   5   10   15
Ile Arg Ala Gln Ala Gly Leu Leu Glu Ala Glu His Gln Ala Ile Val
            20   25   30
Arg Asp Val Leu Ala Ala Gly Asp Phe Trp Gly Gly Ala Gly Ser Val
        35   40   45
Ala Cys Gln Glu Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile
    50   55   60
Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn
65   70   75   80
Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala
                85   90

<210> 10
<211> 285
<212> DNA
<213> M Tuberculosis

<220>
<221> CDS
<222> (1)...(282)

<400> 10
atg acc atc aac tat cag ttc ggt gat gtc gac gct cat ggc gcc atg   48
Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met
 1   5   10   15

atc cgc gct cag gcc ggg ttg ctg gag gcg gag cat cag gcc atc gtt   96
Ile Arg Ala Gln Ala Gly Leu Leu Glu Ala Glu His Gln Ala Ile Val
            20   25   30

cgt gat gtg ttg gcc gcg ggt gac ttt tgg ggc ggc gcc ggt tcg gtg   144
Arg Asp Val Leu Ala Ala Gly Asp Phe Trp Gly Gly Ala Gly Ser Val
            35   40   45

gct tgc cag gag ttc att acc cag ttg ggc cgt aac ttc cag gtg atc   192
Ala Cys Gln Glu Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile
    50   55   60

tac gag cag gcc aac gcc cac ggg cag aag gtg cag gct gcc ggc aac   240
Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn
65   70   75   80

aac atg gca caa acc gac agc gcc gtc ggc tcc agc tgg gcc   282
Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala
                85   90

tga   285

<210> 11
<211> 94
<212> PRT
<213> M Tuberculosis

<400> 11
Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met
1   5   10   15
Ile Arg Ala Gln Ala Gly Leu Leu Glu Ala Glu His Gln Ala Ile Val
            20   25   30
Arg Asp Val Leu Ala Ala Gly Asp Phe Trp Gly Gly Ala Gly Ser Val
        35   40   45
Ala Cys Gln Glu Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile
    50   55   60
Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn
65   70   75   80
Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala
                85   90

<210> 12
<211> 327
<212> DNA
<213> M Tuberculosis

<220>
<221> CDS
<222> (1)...(327)

<400> 12
gtg ctt ttg cct ctt ggt ccg cct ttg ccg ccc gac gcg gtg gtg gcg   48
Val Leu Leu Pro Leu Gly Pro Pro Leu Pro Pro Asp Ala Val Val Ala
1   5   10   15

aaa cgg gct gag tcg gga atg ctc ggc ggg ttg tcg gtt ccg ctc agc   96
Lys Arg Ala Glu Ser Gly Met Leu Gly Gly Leu Ser Val Pro Leu Ser
                20   25   30

tgg gga gtg gct gtg cca ccc gat gat tat gac cac tgg gcg cct gcg   144
Trp Gly Val Ala Val Pro Pro Asp Asp Tyr Asp His Trp Ala Pro Ala
            35   40   45

ccg gag gac ggc gcc gat gtc gat gtc cag gcg gcc gaa ggg gcg gac   192
Pro Glu Asp Gly Ala Asp Val Asp Val Gln Ala Ala Glu Gly Ala Asp
        50   55   60

gca gag gcc gcg gcc atg gac gag tgg gat gag tgg cag gcg tgg aac   240
Ala Glu Ala Ala Ala Met Asp Glu Trp Asp Glu Trp Gln Ala Trp Asn
65   70   75   80

gag tgg gtg gcg gag aac gct gaa ccc cgc ttt gag gtg cca cgg agt   288
Glu Trp Val Ala Glu Asn Ala Glu Pro Arg Phe Glu Val Pro Arg Ser
                85   90   95

agc agc agc gtg att ccg cat tct ccg gcg gcc ggc tag   327
Ser Ser Ser Val Ile Pro His Ser Pro Ala Ala Gly *

<210> 13
<211> 108
<212> PRT
<213> M Tuberculosis

<400> 13
Met Leu Leu Pro Leu Gly Pro Pro Leu Pro Pro Asp Ala Val Val Ala
1   5   10   15
Lys Arg Ala Glu Ser Gly Met Leu Gly Gly Leu Ser Val Pro Leu Ser
                20   25   30
Trp Gly Val Ala Val Pro Pro Asp Asp Tyr Asp His Trp Ala Pro Ala
            35   40   45
Pro Glu Asp Gly Ala Asp Val Asp Val Gln Ala Ala Glu Gly Ala Asp
    50   55   60
Ala Glu Ala Ala Ala Met Asp Glu Trp Asp Glu Trp Gln Ala Trp Asn
65   70   75   80
Glu Trp Val Ala Glu Asn Ala Glu Pro Arg Phe Glu Val Pro Arg Ser
                85   90   95
Ser Ser Ser Val Ile Pro His Ser Pro Ala Ala Gly
            100   105

<210> 14
<211> 324
<212> DNA
<213> M Tuberculosis

<220>
<221> CDS
<222> (1)...(324)

<400> 14
ttg acc cac aag cgc act aaa cgc cag cca gcc atc gcc gca ggg ctc   48
Leu Thr His Lys Arg Thr Lys Arg Gln Pro Ala Ile Ala Ala Gly Leu
1   5   10   15

aac gcc ccg cgt cgg aat cgc gtt ggg cgg caa cat ggt tgg ccg gcc   96
Asn Ala Pro Arg Arg Asn Arg Val Gly Arg Gln His Gly Trp Pro Ala
                20   25   30

gac gtt ccg tcc gcc gag cag cgc cgc gcc caa cgg cag cgc gac ctc   144
Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg Asp Leu
            35   40   45

gag gct atc cgc cga gcg tac gcc gag atg gtg gcg aca tca cac gaa   192
Glu Ala Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu
    50   55   60

atc gac gac gac aca gcc gaa ctg gcg ctg ttg tcg atg cat ctc gac   240
Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser Met His Leu Asp
65   70   75   80

gat gag cag cgc cgg ctt gag gcg ggg atg aag ctc ggc tgg cat ccg   288
Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro
                85   90   95

```
tat cac ttc ccc gac gaa ccc gac agc aaa cag tga                324
Tyr His Phe Pro Asp Glu Pro Asp Ser Lys Gln  *
            100                 105
```

<210> 15
<211> 107
<212> PRT
<213> M Tuberculosis

<400> 15
```
Met Thr His Lys Arg Thr Lys Arg Gln Pro Ala Ile Ala Ala Gly Leu
 1               5                   10                  15
Asn Ala Pro Arg Arg Asn Arg Val Gly Arg Gln His Gly Trp Pro Ala
            20                  25                  30
Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg Asp Leu
        35                  40                  45
Glu Ala Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu
    50                  55                  60
Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser Met His Leu Asp
65                  70                  75                  80
Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro
                85                  90                  95
Tyr His Phe Pro Asp Glu Pro Asp Ser Lys Gln
            100                 105
```

<210> 16
<211> 246
<212> DNA
<213> M Tuberculosis

<220>
<221> CDS
<222> (1)...(246)

<400> 16
```
atg agc ggc cac gcg ttg gct gct cgg acg ttg ctg gcc gcc gcg gac     48
Met Ser Gly His Ala Leu Ala Ala Arg Thr Leu Leu Ala Ala Ala Asp
 1               5                   10                  15

gag ctt gtc ggc ggc ccg cca gtc gag gct tcg gcc gcc gcg ctg gcc     96
Glu Leu Val Gly Gly Pro Pro Val Glu Ala Ser Ala Ala Ala Leu Ala
            20                  25                  30

ggc gac gcc gcg ggc gca tgg cgg acc gcg gcc gtc gag ctt gcg cga    144
Gly Asp Ala Ala Gly Ala Trp Arg Thr Ala Ala Val Glu Leu Ala Arg
            35                  40                  45

gcg ttg gtc cgc gct gtg gcg gag tcg cac ggc gtc gcg gcc gtt ttg    192
Ala Leu Val Arg Ala Val Ala Glu Ser His Gly Val Ala Ala Val Leu
    50                  55                  60

ttc gcc gcg acg gcc gcc gcg gcg gcg gcc gtc gac cgg ggt gat ccg    240
Phe Ala Ala Thr Ala Ala Al
```